



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,086	06/27/2003	Zhicheng Li	44662B (1062-014C1)	7520

25215 7590 12/09/2004
DOBRUSIN & THENNISCH PC
29 W LAWRENCE ST
SUITE 210
PONTIAC, MI 48342

EXAMINER

FULLER, ERIC B

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,086

Applicant(s)

LI ET AL.

Examiner

Eric B Fuller

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-25 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 18, 2004 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 9, 10, 21, 22, 24, 25, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945).

Locke teaches a two-component sprayed composition that is applied to automobile parts (column 3, lines 1-10). One component comprises aliphatic isocyanates, including isophorone diisocyanate (column 9, lines 30-50). The other component comprises amines (column 4, lines 23-67). The amines may be a mixture of

Art Unit: 1762

aliphatic primary and secondary amines (column 4, lines 23-30). The components are kept separate until mixed and also is thixotropic (column 8, lines 3-20). The composition amounts are within the applicant's claimed range (column 10, lines 28-50; column 4, lines 40-60). The reference is silent to the performance properties of the resulting coating. However, it is taught to include fillers in order to achieve strength and hardness characteristics (column 7, lines 43-67). It would have been obvious and within the skill of one practicing in the art, through routine experimentation, to optimize the performance properties of the resulting coating by determining the relative amounts of the components in the mixture, including fillers, and exacting amine ratios, absence evidence of unexpected results. By doing so, the life of the product is extended.

Locke teaches the limitations above, but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

Claims 2, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019), as applied to claim 1 above, and further in view of Burton (US 5,925,466).

Art Unit: 1762

Locke teaches the limitations shown above, but is silent to the substrate being an automotive bed liner. However, Burton teaches that truck bed liners require characteristics that the composition of Locke provides (column 3, lines 1-17). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the composition taught by Locke in the bed liner taught by Burton. By doing so, one would have a reasonable expectation of success as Locke teaches to apply the composition to automobile parts requiring flexibility, hardness, and elasticity and Burton teaches that bed liners require such characteristics.

Claims 3, 13-15, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466), as applied to claim 2 above, and further in view of Wade et al. (US 5,580,945).

Locke, in view of Burton, teaches the limitations to claim 2, but is silent to using aspartic acid ester. However, Wade teaches that by using aspartic acid ester in the amine component, the resulting coating is hard, elastic, abrasion resistant, weather resistant, and has increased flexibility. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use aspartic acid ester in the composition taught by Locke. By doing so, one would reap the benefits of the coating being hard, elastic, abrasion resistant, weather resistant, and having increased flexibility.

As to claims 15 and 20, Locke explicitly teaches these limitations in column 4, lines 55-67, and column 7, line 60.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the metering containers of the spray apparatus. Locke does teach to use a conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 1 above, and further in view of Uhrhan et al. (US 4,145,512).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of light stabilizers. However, Uhrhan teaches that the addition of light stabilizers for protection against discoloration and degradation. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use light stabilizers in the composition of Locke and Wade. By doing so, one would reap the benefits of protecting the composition from discoloration and degradation.

Claims 8, 23, and, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Wade et al. (US 5,580,945), as applied to claim 4 above, and further in view of Thomaides et al. (US 5,626,840).

Locke, in view of Wade, teaches the limitations to claim 1, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use static control agents in the composition of Locke and Wade. By doing so, one would reap the benefits of achieving quality spray coatings.

Claims 16, 18, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945), as applied to claims 3 and 14 above, and further in view of Thomaides et al. (US 5,626,840).

Locke, in view of Burton and Wade, teaches the limitations to claim 3 and 14, but is silent to the use of static control agents. However, Thomaides teaches that it is desirable to control static through the use of stannic salts in order to achieve quality spray coatings (column 14, lines 55-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use static control

Art Unit: 1762

agents in the composition of Locke. By doing so, one would reap the benefits of achieving quality spray coatings.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Locke et al. (US 6,291,019) in view of Burton (US 5,925,466) and Wade et al. (US 5,580,945) and Thomaides et al. (US 5,626,840), as applied to claim 18 above, and further in view of Meader, Jr. et al. (US 4,025,683).

Locke, in view of Burton, Wade, and Thomaides, teaches the limitations to claim 18, but is silent to the metering containers of the spray apparatus. Locke does teach a conventional two-component spray system (column 12, lines 1-13). Meader teaches a two-component spray system that uses metering, mixing, and spraying in order to deliver controlled amounts of the components (column 9, lines 10-24). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use metering in the spraying apparatus of Locke. By doing so, one would reap the benefits of controlling the amount of components delivered.

Response to Arguments

Applicant argues that amendments made to claim 1 overcome the rejection based on Locke, singularly. This has been found convincing. Examiner has supplied Wade in order to teach the added limitations.

Applicant argues that amendments made to claim 2 overcome the rejection based on Locke, in combination. This has not been found convincing. Examiner has

Art Unit: 1762

show where Locke teaches the relative amounts of materials in the composition.

Additionally, it would have been obvious, through routine experimentation, at the time the invention was made to a person having ordinary skill in the art to determine the ratio or primary to secondary amines in the formulation, absence evidence of unexpected results.

Applicant argues that claim 3 overcomes the rejection based on Locke, in combination. Applicant alleges that it would not have been obvious to modify the composition of Locke and to apply it to a bed liner. This has not been found convincing. Examiner has shown an obvious line of thinking that results in the claimed invention. Specifically, it has been shown why it would be obvious to include an aspartic acid ester in the composition (to increase hardness, weatherability, and flexibility) and it has been shown why it would have been obvious to apply the composition to a bed liner (because bed liner require the same properties that the composition that Locke possesses). As Burton only further improves these properties that Locke possesses and bed liners require, the combination would have been obvious. Applicant has failed to argue against this line of reasoning and has only alleged non-obviousness without supporting reasons against the *prima facie* case that has been established by the examiner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B Fuller whose telephone number is (571) 272-1420. The examiner can normally be reached on Mondays through Thursdays.


Art Unit: 1762

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck, can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EBF



SHRIVE P. BECK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700